

IN THE CLAIMS:

Claims 3-6, 8, 10-17, and 20 have been amended herein. All of the pending claims 1 through 21 are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

1. (Original) A recombinant receptor comprising:
a ligand-binding domain and
a domain that comprises a heterologous bait polypeptide,
wherein the activation of said recombinant receptor is inhibited by binding of a prey polypeptide to said heterologous bait peptide.
2. (Original) The recombinant receptor of claim 1, wherein said recombinant receptor is a transmembrane receptor.
3. (Currently amended) The recombinant receptor of claim 1 ~~or claim 2~~, wherein said recombinant receptor is activated by the addition of a compound that disrupts the bait-prey interaction.
4. (Currently amended) The recombinant receptor of claim 1, ~~claim 2, or claim 3~~ wherein said recombinant receptor is a homomultimerizing receptor.
5. (Currently amended) The recombinant receptor of claims 1, ~~claim 2, or claim 3~~ wherein said recombinant receptor is a heteromultimerizing receptor.
6. (Currently amended) The recombinant receptor of claim 1, ~~claim 2, claim 3, claim 4, or claim 5~~ wherein the binding of said prey polypeptide depends upon the modification state of said heterologous bait peptide.

7. (Original) The recombinant receptor of claim 6 wherein the modification state is presence or absence of phosphorylation, acetylation, acylation, methylation, ubiquitination or glycosylation.

8. (Currently amended) The recombinant receptor of claim 6 ~~or claim 7~~ wherein the change of the modification state is dependent upon binding of a ligand to the ligand-binding domain.

9. (Original) A prey polypeptide comprising:
a polypeptide that interacts with a bait polypeptide and
a polypeptide comprising an inhibitor of activation of a receptor and/or a recruitment site for an inhibitor of activation of a receptor.

10. (Currently amended) The prey polypeptide of claim 9, comprising:
a polypeptide that interacts with the heterologous bait polypeptide of ~~the~~ a recombinant receptor of ~~claim 1, claim 2, claim 3, claim 4, claim 5, claim 6, claim 7, or claim 8~~ comprising:
a ligand-binding domain and
a domain that comprises a heterologous bait polypeptide,
wherein the activation of said recombinant receptor is inhibited by binding of a prey polypeptide to said heterologous bait peptide and
a polypeptide comprising an inhibitor of a receptor.

11. (Currently amended) A vector encoding the recombinant receptor of claim 1; ~~claim 2, claim 3, claim 4, claim 5, claim 6, claim 7, or claim 8~~.

12. (Currently amended) A vector encoding the prey polypeptide of claim 9 ~~or claim 10~~.

13. (Currently amended) A eukaryotic cell comprising the recombinant receptor of claim 1, ~~claim 2, claim 3, claim 4, claim 5, claim 6, claim 7, or claim 8~~.

14. (Currently amended) A eukaryotic cell comprising the prey polypeptide of claim 9 ~~or claim 10~~.

15. (Currently amended) The eukaryotic cell of claim 13 ~~or claim 14~~, where said cell is selected from the group consisting of a mammalian cell, a fungal cell, and a plant cell.

16. (Currently amended) A kit, comprising a cloning vector allowing the construction of the vector of claim 11 ~~or claim 12~~.

17. (Currently amended) A method of screening compounds that disrupt compound-compound binding, said method comprising:

screening compounds with ~~the a~~ recombinant receptor of ~~claim 1, claim 2, claim 3, claim 4, claim 5, claim 6, claim 7, or claim 8~~ comprising:

a ligand-binding domain and

a domain that comprises a heterologous bait polypeptide,

wherein the activation of said recombinant receptor is inhibited by binding of a prey polypeptide to said heterologous bait peptide and/or a prey polypeptide comprising a polypeptide that interacts with a bait polypeptide and a polypeptide comprising an inhibitor of activation of a receptor and/or a recruitment site for an inhibitor of activation of a receptor.

18. (Original) The method according to claim 17, wherein said compound-compound binding is modification state dependent.

19. (Original) The method according to claim 18, wherein said modification is phosphorylation, acetylation, acylation, methylation, ubiquitination or glycosylation.

20. (Currently amended) The method according to claim 17, ~~claim 18, or claim 19,~~ wherein said binding is mediated by three or more partners.

21. (Original) The method according to claim 20, wherein at least one of the partners is not or not completely of proteinaceous nature.